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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/771,225

01/26/2001

Eric K. Wilson

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05/17/2005

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EXAMINER

HARPER, KEVIN C

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/771,225

Applicant(s)

WILSON, ERIC K.

Examiner

Kevin C. Harper

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 22 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/2001.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Drawings

1. Figure 2 is objected to because one of the duplications of “downstream” should be removed for clarity. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because the US application number of the co-pending application is missing on page 1. Appropriate correction is required.

Claim Objections

3. Claim 6 is objected to because it contains two periods. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Quigley et al. (US 6,650,624).

4. Regarding claims 1 and 17, Quigley discloses a method for distributed upstream QoS processing (col. 36, lines 39-48) in a broadband access system (fig. 1). The method comprises measuring a quality of received packets (col. 32, line 64 through col. 33, line 7; col. 37, lines 30-37) sent by a modem in an upstream channel at a modem termination system (fig. 27, item 10), determining whether the measured quality is within a predetermined range (col. 36, lines 39-48; col. 38, lines 12-17), sending an out-of-range quality report or exception for the received packets (col. 40, lines 24-32; fig. 29, packet/FEC status, SIR, channel power) to a network management server (fig. 29, item 340), and modifying operating parameters for the upstream channel in accordance with the measured quality if an out-of-range quality is reported (col. 36, lines 57-60; col. 38, lines 2-7 and 12-17).

5. Regarding claims 2-4, the step of measuring comprises measuring a SNR (col. 38, lines 662-65), a bit-error-rate (col. 39, lines 5-8), or a FEC quality measure (col. 39, lines 9-11).

6. Regarding claims 5 and 11, an average value is obtained for a series of packets (col. 38, lines 33-42; col. 40, lines 46-48) to determine if a quality is above or below a threshold. The average is associated with a modem ID (col. 37, lines 37-40; col. 52, lines 55-58).

7. Regarding claim 6, the network management server (fig. 29, item 340) reassigns the modem to a different downstream channel (col. 40, lines 56-65) in the same operating frequency sector (i.e. frequency range -- col. 37, lines 34-37).

8. Regarding claims 7-10, 12-15, 18 and 20, the network management server reassigns the modem to a lower/higher order modulation type (col. 45, lines 38-42), a lower/faster symbol rate (col. 40, lines 38-42), or a more/less robust FEC scheme (col. 39, lines 19-22). A combination of adjustments is made (col. 39, lines 22-25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quigley et al. (US 6,650,624) in view of Houck et al. (US 5,920,571).

9. Regarding claims 16 and 19, Quigley discloses a method for reassigning a modem to a channel (fig. 29). However, Quigley does not disclose reassigning a modem to a channel that has similar parameters but less traffic. Houck discloses reassigning a modem (fig. 1, item 185; col. 3, line 67 through col. 4, line 5; col. 4, lines 21-22) to a channel having similar parameters, but having

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less traffic (col. 2, lines 31-36; col. 3, lines 11-19). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to reassign a modem to a lesser used channel in the invention of Quigley in order to reduce interference or contention in the system (Houck, col. 1, lines 62-65).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quigley et al. (US 6,650,624) in view of Perreault et al. (US 6,169,728).

10. Quigley discloses a method for reassigning a modem to an upstream channel (fig. 29) as noted in the rejection of claim 1 above. However, Quigley does not disclose reassigning a modem to a downstream channel. Perreault discloses reassigning downstream channels in a cable modem system (fig. 5, steps 315 and 320). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have reassign a downstream channel in the invention of Quigley in order to provide an improved downstream channel for transmission (Perreault, col. 9, lines 39-47).

Allowable Subject Matter

11. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

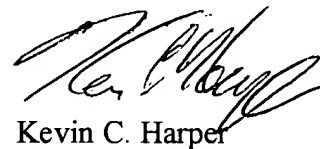
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Le-Ngoc (US 6,714,551; figs. 1 and 5) and Raith (US 2004/0160901; figs. 2 and 5) each discloses reassigning channels in a wireless (non-cable) system.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:30 AM to 7:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 571-272-3174. The centralized fax number for the Patent Office is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see portal.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Kevin C. Harper", is positioned above the printed name.

Kevin C. Harper

May 15, 2005